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The cyclical behavior of fiscal policy in Romania

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Abstract

With the recent economic recession, fiscal policy was regarded with more interest since it was expected to be effective in the economic recovery. Given the limited scope of monetary policy to provide additional stimulus, fiscal policy has became the most important tool for stabilizing business cycles. This paper assesses the cyclical behaviour of fiscal policy in Romania by calculating the structural deficit and the fiscal impulse. The period considered for this analysis is 2000-2013. According to the results obtained fiscal policy was generally procyclical except 2013. In the period of economic growth 2006-2008, the fiscal policy was highly procyclical and it continued to be procyclical during the economic recovery of 2009-2012 because of the necessity to reduce the budget deficit and because of the financing constraints. The procyclicality of fiscal policy during booms have consequences on the long term sustainability of fiscal policy.

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1. Introduction

After the economic crisis, the research on fiscal policy received greater attention due to its role in economic recovery. Given the limited scope of monetary policy to provide additional stimulus, fiscal policy was an important tool for stabilizing business cycles. Countries have adopted different measures of fiscal policy. The developed economies implemented fiscal stimulus packages as a measure for the economic recovery while the developing economies had to take mainly consolidation fiscal measures imposed as a consequence of a procyclical policy adopted before the economic crises.

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Despite the large number of empirical studies, with different approaches for assessing fiscal policy, there is still no consensus about the size or sign of the effects of fiscal policy shocks on macroeconomic variables. Although there is a wide range of estimates for the impact of fiscal policy shocks, the results indicate a common conclusion regarding the fiscal multipliers for developing economies, namely that they are small and therefore the effect of fiscal policy on GDP is reduced. From a theoretical perspective, there are two main approaches (the Keynesian and neoclassical theory) that predict different responses of private consumption, employment and real wages, following a fiscal shock. Also, the first approach supports an active role of fiscal policy while the second supports a neutral fiscal policy to the business cycle. According to Keynesian approach, the expansionary and contractionary fiscal policies can be used to influence macroeconomic performance. For this purpose it is recommended that the government implement an expansionary fiscal policy during the recession and opposite in good time, meaning to adopt countercyclical fiscal policy. A rise in government expenditure could impact positively the aggregate demand and (including also the multiplier effect) restore the economy to the natural level of GDP, when the economy is in recession, while a decrease of expenditures or increase of taxes reduce the aggregate demand during economic boom. In the Keynesian model a positive government expenditure shock determine a rise in aggregate demand and labour demand so that both consumption and wages will rise. According to neoclassical approach the fiscal policy should remain neutral over the business cycle. In the neoclassical model a positive fiscal policy shock is regarded as a negative wealth shock because either now or in the futures, the increase in government expenditure will need to be financed by higher taxes. According to this assumption, households will reduce their consumption and increase labour supply. Both theories predict a rise in output but through different channel. The neoclassical assumptions are valid if the Ricardian equivalence holds, but for emerging economies this approach is not so supportive.

1.1 Procyclical fiscal policy in developing countries

Although the role of fiscal policy in economic growth has been questionable, there is no disagreement on the fact that fiscal policy should be countercyclical. But in practical terms it is very difficult and costly for a government to take countercyclical fiscal measures either during upturns or downturns. For example in absence of adequate financial resources and due to constraints on borrowing, cutting government expenditure and rising taxes in downturns may be necessary. As it is emphasize in Balassone and Kumar (2007), the need to reduce government expenditure during downturns can in turn add to expenditure pressure in good time and thus resulting in a vicious cycle of procyclical policies, especially for developing countries, which ultimately affect both economic growth and budgetary sustainability. The procyclicality of fiscal policy is not a problem just for developing countries, but especially in this case can determine deeper economic imbalances. The main causes of procyclicality are (see more details in Balassone and Kumar 2007) :

- methodological difficulties is assessing the economic cycle because of difficulties in estimating the potential GDP, which in turn consist mainly in lags in the availability of data and lags in implementation of policy;
- weak institutions, meaning corruption, lack of enforcement of property rights for investors, lack of democratic accountability, low quality of bureaucracy;
- changes in fiscal policy made by government with political purpose to seek more votes;
- financial constraints and limited access to international capital markets;
- low confidence of foreign investors and the capital outflows during the downturns.

2. The assessment of procyclicality of fiscal policy in Romania

2.1 Methodology

The fiscal policy can be evaluated based on indicators, including the structural budget balance indicator. The structural budget balance is used for several purposes in the analysis and conduct of fiscal policy as it is pointed in Larch and Turrini (2009): to separate the contribution of discretionary fiscal policy from the effect of the economic environment; to assess fiscal impulse; and to examine whether a given fiscal policy is sustainable. This indicator can be obtained after the elimination of cyclic fluctuations or as the difference between permanent income and expenses.

The size of the structural budget balance is the size of the budget balance that would be obtained if the real GDP would be at the same level as its potential level, a level that would not generate inflation pressure. Thus the analysis of the structural deficit would be more relevant than the analysis of the actual budget deficit because it does not consider short term income. If the GDP would be over its potential level, in the economy there would be more income (but not permanent) which would lead to a smaller budget deficit than the structural one and consequently to less efficient decisions about the fiscal policy. Although in this regard it seems more appropriate to take into account the structural balance there is still a problem in determining it. Because the structural balance is determined based on potential GDP, and this latter is an unobservable variable, the results obtained should be considered with some reservation. Based on the chosen methodology to estimate potential GDP the results for potential structural balance will vary as well.

For the estimation of potential GDP, specialized literature has devoted considerable attention developing many estimation methods: statistical methods, semi-structural models, multivariate filters, DSGE models. Each technique has advantages and disadvantages but is difficult to choose which method is the best, because the potential GDP is not an observable variable. The most used methods are those based on the production function or statistical methods based on data filtering (Hodrick-Prescott filter, Band-pass filter, Kalman filter) which decompose the series of data in a trend and cyclic component. Recently there have been developed DSGE models that include more economic information than the methods mentioned above. Although it is recommended to estimate the potential GDP using the method based on production function due to the link with the real economy, for this estimation the Hodrick-Prescott filter was used instead because of issues regarding the data availability.

The next step for the determination of structural budget balance is to calculate the budgetary sensitivity parameter to changes in GDP. In the specialized literature this parameter is derived by aggregating the elasticities for each budgetary element to obtain the overall revenue elasticity and respectively the overall expenditure elasticity, which are expressed then as a percent of GDP.

To summarize, the structural budget balance was derived as follows:

$$CAB_t = BB_t - CC_t = BB_t - \varepsilon \times OG_t, \qquad (1)$$

where *CABt* is the cyclical adjusted budget balance (or the structural budget deficit) in year t, *BBt* is the nominal budget balance-to-GDP ratio in year t, *CCt* the cyclical component of budget balance in year t, ε the budgetary sensitivity parameter, and OGt the output gap in year t, which is the difference between real GDP and potential GDP (see Larch and Turrini, 2009).

The decomposition of the budget balance in its cyclical and structural components can indicate the position of fiscal policy by calculating a dynamic indicator, namely the fiscal impulse. This indicator represents the change in the structural balance determined as the difference between the estimated value for the previous year and the current year. A positive fiscal impulse reflects a lax fiscal policy and also an increase in the budget deficit, while a negative value indicates a fiscal consolidation.

In the context of an economy characterized by excess demand, a positive fiscal impulse indicates a procyclical fiscal policy because it no longer has the stabilizing role for the business cycle but rather amplifies the cyclical fluctuations and inflationary pressures.

2.2 Empirical results

To determine the structural deficit, then fiscal impulse, series for real GDP and the budget deficit were used, for the period 2000-2013. The potential GDP was determined by applying Hodrick Prescott filter on logarithm of real GDP series and the elasticity used to calculate the cyclical component of budget deficit was an average value of 0.4. The results are shown in Table 1.

A first observation about the results is that the budget balance for the period considered was negative. Since 2000 to 2005 the budget deficit decreased, being higher than structural budget deficit. The same is valid also for the period 2009-2013, but noting that the reduction in this case is higher, about 6.7%. In 2006-2008 the structural budget deficit was much higher than the actual budget deficit because of a higher positive output gap. If the overall the difference between the actual deficit and the structural deficit was reduced, in 2008 this gap increased substantially. This particular situation demonstrates the importance of also analyzing the evolution of the structural budget deficit, because if we take into account the cyclical component of business cycle in defining the measure of budget balance, the changes in fiscal policy position are not defined entirely correct. Thus, the implementation of fiscal policy decisions considering that the budget deficit is -5.7%, without having in mind that the structural deficit is much larger (-9%), can have serious consequences on the long term sustainability of fiscal policy.

Table 1. Structural Budget Balance and Fiscal Impulse in Romania

Year	Budget Balance	Output Gap	Structural Budget Balance	Fiscal Impulse
2000	-4.7	-0.63	-4.45	-
2001	-3.5	-0.90	-3.14	-1.31
2002	-2	-1.72	-1.31	-1.83
2003	-1.5	-2.34	-0.56	-0.75
2004	-1.2	0.28	-1.31	0.75
2005	-1.2	-0.82	-0.87	-0.44
2006	-2.2	2.12	-3.05	2.18
2007	-2.9	4.38	-4.65	1.60
2008	-5.7	8.49	-9.09	4.44
2009	-9	-0.45	-8.82	-0.27
2010	-6.8	-3.16	-5.53	-3.29
2011	-5.5	-2.14	-4.65	-0.89
2012	-3	-2.72	-1.91	-2.74
2013	-2.3	-0.39	-2.14	0.23

The fiscal impulse and the evolution of the output gap are shown together in Figure 1. According to the results obtained fiscal policy was generally procyclical except 2013. In the period of economic growth 2006-2008 the fiscal policy was highly procyclical and it continued to be procyclical during the economic recovery of 2009-2012 because of the necessity to reduce the budget deficit and because of the financing constraints. As fiscal policy has helped to stimulate the economy during the economic boom (2006-2008) and had to impose highly restrictive measures in the coming period we conclude that fiscal policy had no role in stabilizing the business cycle.

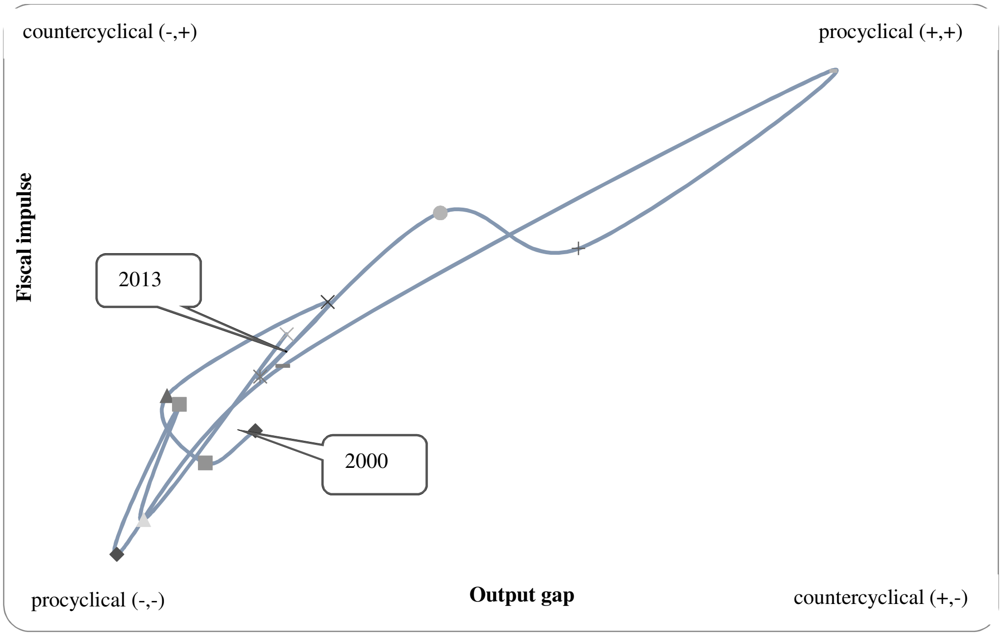

Fig. 1. Fiscal Impulse and Output Gap in Romania

3. Conclusions

Fluctuations in the economic cycle can be influenced by the fiscal and budget policy through lowering or raising taxation or budget expenses. Based on decisions regarding taxation levels and budget expenses and the economic situation (economic boom or recession) the promoted policies have a procyclical or countercyclical character. It is desirable that the measures are countercyclical to attenuate the fluctuation of the economic cycle. But in practical terms it is very difficult and costly for a government to take countercyclical fiscal measures either during upturns or downturns.

A procyclical policy affects both economic growth and fiscal policy sustainability. However, for a developing country, it is difficult to avoid a procyclical fiscal policy due to borrowing constraints in bad times and especially electoral pressure in good times. Also, fiscal multipliers for emerging economies are small and because of this, the impact of countercyclical fiscal policy over the business cycle could be small.

The behaviour of fiscal policy in Romania was also procyclical during the period analyzed. In the period of economic growth (2006-2008) the fiscal policy was highly procyclical thus contributing to the amplification of business cycle and had to remain procyclical in the downturn period. This resulted in the growth of public debt and restrictive measures applied on both component of the budget, reducing budget expenditure on one hand and increasing taxes on the other. Only in the last year of the period analyzed the fiscal policy was slightly countercyclical.

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